

REMARKS

Claims 1-3, 5-8, and 11-20 were rejected under §112, first and second paragraphs. Support is found on page 7, lines 14-21 and reconsideration and withdrawal of the rejection are respectfully requested.

As explained at page 7, lines 14-21, Figure 4 shows that the third terminal 4 is connected to uncoated sections 2a of anode elements 5 in electric-power generating element 8 so that it does not contact positive electrode terminal 2. As stated therein, both of the terminals are desirably separated as far as possible from each other in order to minimize the influence on third terminal 4 of the heat generated in positive electrode terminal 2 by rapid charge. In view of this description in the specification, a person of skill in the art would understand that heat is generated in positive electrode terminal 2 when secondary battery 1 is charged because the current that is caused by charging the battery 1 passes through positive electrode terminal 2, but heat is not generated in third terminal 4 because the current that is caused by charging the battery 1 does not pass through the third terminal 4. That is, third terminal 4 is out of the path of the current that is caused by charging battery 1. If the third terminal was in the path of the current, the third terminal would get hotter, which it does not. Accordingly, the claims comply with the written description requirement.

Claim 18 was rejected under §112, first and second paragraphs. Claim 18 has been amended and reconsideration and withdrawal of the rejection are respectfully requested. The attachment of the third terminal to a respective one of the positive and negative electrode collectors is disclosed.

Claims 1-3, 6-7, and 13-18 were rejected as anticipated by or unpatentable over CLINGEMPEEL 5,895,731. Reconsideration and withdrawal of the rejection are respectfully requested.

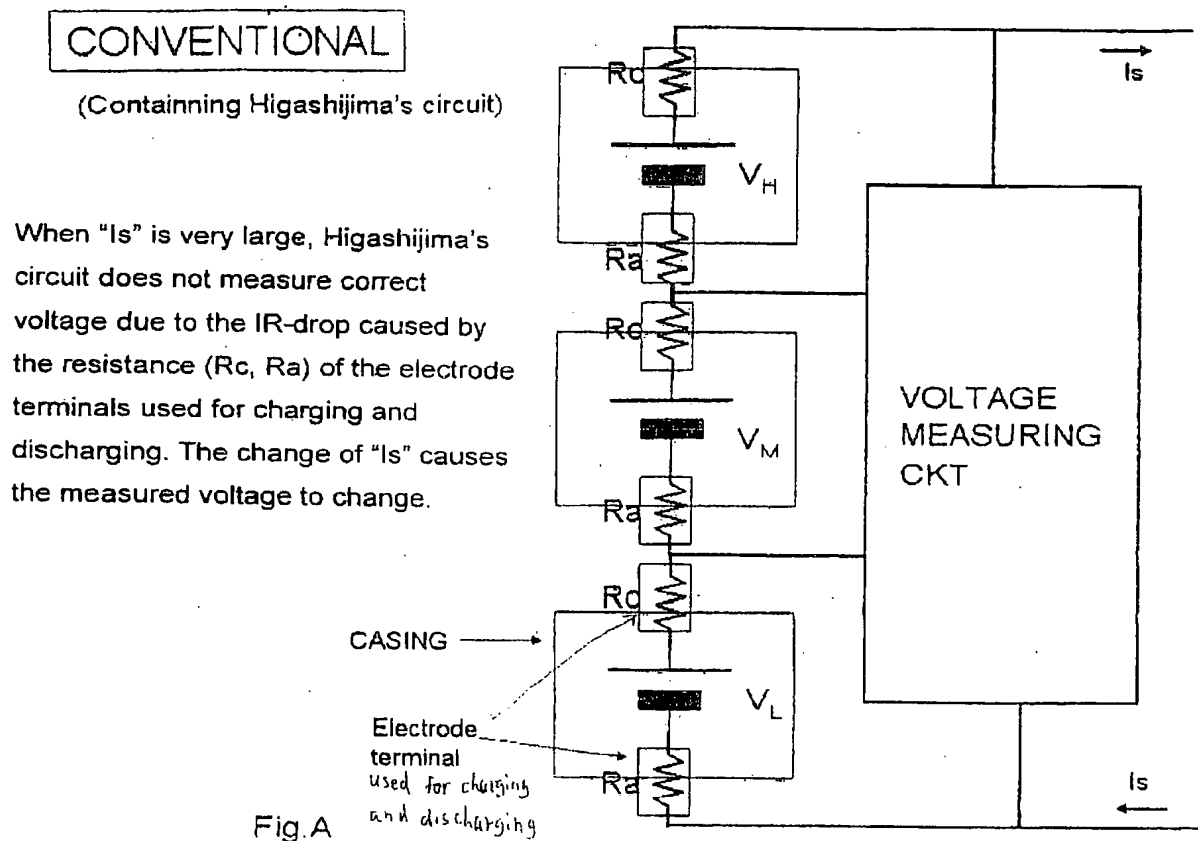
Claim 1 provides, among other features, that positive and negative electrode terminals for charge and discharge are attached to the positive and negative electrode collectors, respectively, and that the third terminal is "attached directly to one of said positive and negative electrode collectors." Therefore, the third terminal is attached directly to a collector to which the respective one of the positive and negative electrode terminals is attached. In other words, one of the collectors in claim 1 has two terminals attached (the third terminal and one of the positive and negative electrode terminals). By contrast, CLINGEMPEEL discloses that each collector has only one terminal attached. See, for example, column 3, lines 11-33 in which the two cathodes, each with a respective cathode terminal, are described. Accordingly, claim 1 avoids the rejection under §102/103.

Claims 5, 8, 11-12, and 19-20 were rejected as unpatentable over CLINGEMPEEL in view of HIGASHIJIMA 5,886,502.



Reconsideration and withdrawal of the rejection are respectfully requested for the reasons set forth above.

HIGASHIJIMA does not make up for the shortcomings of CLINGEMPEEL noted above. The Applicant has provided the drawings below that clearly show the difference between the present invention ("Our Technique") and the conventional technique of HIGASHIJIMA.



# OUR TECHNIQUE

In case of Figs. 7 and 8  
 of the specification

In our technique, the voltage of the electric power generating element (EGE) is measured correctly, the voltage is not influenced by the change of "Is" because the "third terminal" connects EGE so as to avoid the resistance of the electrode terminals ( $R_c$ ,  $R_a$ ).

Fig. B

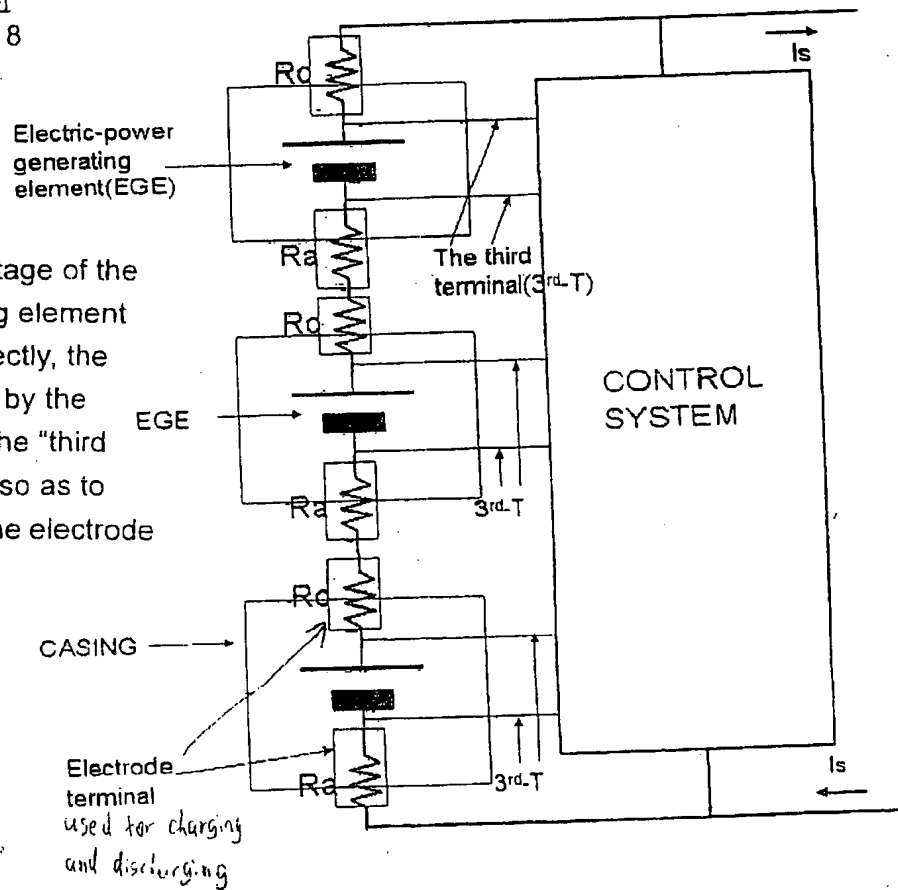


Fig. C

# CONVENTIONAL

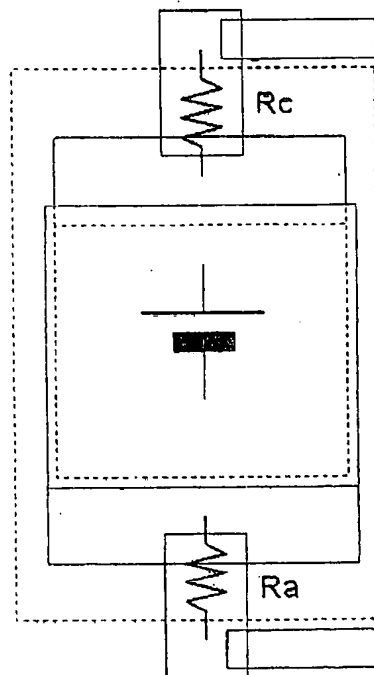
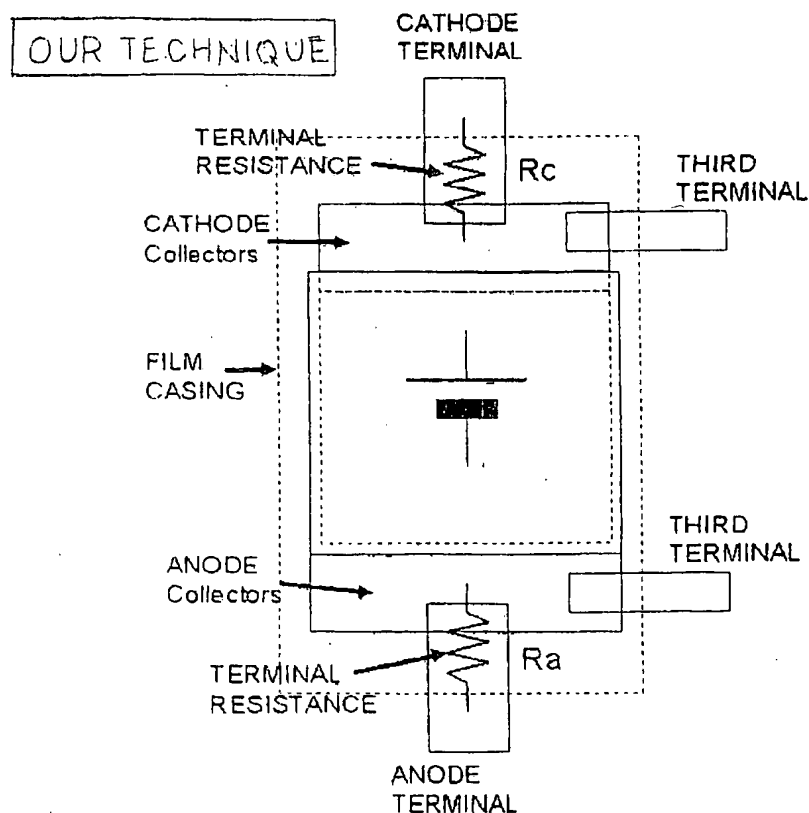


Fig. D.



In the present invention, the correct potential at the electrode collector, which is not influenced by resistance  $R_a$  or  $R_c$  of the electrode terminal used for charging and discharging or by the IR-drop, is obtained by using the third terminal that does not directly contact the electrode terminal. By contrast, in the conventional technique, a terminal for obtaining the potential at the electrode collector is connected to the electrode terminal used for charging and discharging. Therefore, the influence of the resistance  $R_a$  or  $R_c$  of the electrode terminal used for charging and discharging or the influence of the IR-drop cannot

be avoided. Accordingly, the combination of CLINGEMPEEL and HIGASHIJIMA does not make the claimed invention obvious.

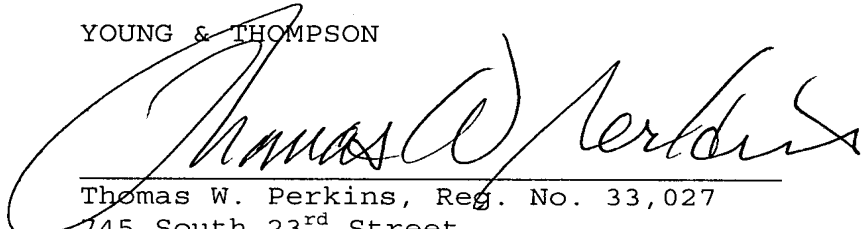
New claim 21 has been added and is allowable for the reasons set forth above.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



Thomas W. Perkins, Reg. No. 33,027  
745 South 23<sup>rd</sup> Street  
Arlington, VA 22202  
Telephone (703) 521-2297  
Telefax (703) 685-0573  
(703) 979-4709

TWP/lrs